Abstract

A single physical channel carries "fast feedback" information in such a way that each type of data is on a physical sub-channel. The sub-channels are not "logical" channels in that they cannot be separated by logical functions alone because some knowledge of the modulation mechanisms is required. Each sub-channel is independently channel coded (this is outer channel coding if an inner code is applied). The resulting code symbols from all sub-channels are then merged into one set of symbols. These code symbols can then optionally be concatenation interleaved and inner channel coded, if the performance enhancement is desired and the complexity is acceptable. The result is then extended by code symbol repetition to provide a total number of symbols greater than or equal to one of the possible quantities of symbols per frame supported by the physical channel, and then decimated (symbols deleted) to provide a number of symbols equal to one of the allowable quantities of symbols per frame. The result is then interleaved, and transmitted over the physical channel.